

What is claimed is:

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5 1. A ~~breathable, highly water repellent,~~ flexible porous web which has an internally located coating that is comprised of a curable silicone polymer composition, said coating being positioned in an approximately planar region extending through the web in a direction generally parallel to one surface thereof.

10 2. The web of Claim 1 wherein said liquid silicone polymer composition has a viscosity of at least about 5,000 and less than about 2,000,000 centipoise and the quantity of said silicone polymer composition ranges from about 5 to about 200 weight percent of the weight of the untreated web.

15 3. The web of Claim 2 wherein said silicone polymer composition is cured and is elastomeric.

4. The web of Claim 1 wherein said web is fibrous.

5. The web of Claim 4 wherein said web is a fabric.

20 6. The web of Claim 5 wherein said fabric is woven.

7. The web of Claim 5 wherein said fabric is non-woven.

25 8. The web of Claim 3 wherein said fibers are comprised of a synthetic polymer.

9. The web of Claim 8 wherein said synthetic polymer is selected from the group consisting of polyamides, polyesters, regenerated cellulose, cellulose acetate, and mixtures thereof.

30 10. The web of Claim 3 wherein said fibers are comprised of natural fibers.

11. The web of Claim 10 wherein said natural fibers are selected from the group consisting of cotton, linen, wool and silk.

12. The web of Claim 3 wherein said fibers are comprised of a mixture of natural fibers and synthetic fibers.

5 13. The web of Claim 3 wherein said fibers are comprised of a blend of cotton fibers and polyester fibers.

14. The web of Claim 1 wherein said web comprises a laminated fabric and a non-woven porous, flexible substrate.

10 15. The laminate of Claim 14 wherein said substrate comprises a non-woven fabric.

16. The web of Claim 1 wherein said web is leather.

15 17. The web of Claim 1 wherein said web is porous paper.

18. The web of Claim 1 wherein said web is an open celled foamed plastic structure.

19. The web of Claim 1 wherein said web is a synthetic leather.

20 20. The web of Claim 1 wherein said web comprises a laminate comprising a layer of an open celled porous flexible material and a layer of a non-porous, flexible material.

25 21. The web of Claim 1 which is preliminarily impregnated with a fluorocarbon.

22. The web of Claim 1 which has a waterproofness of at least about 25 pounds per square inch as measured by the modified Federal Hydrostatic Resistance Test 191A-5512.

30 23. The web of Claim 1 wherein some interstices are open.

24. A process for producing a porous web that is internally coated with a silicone polymer composition comprising the steps of continuously and successively:

35 (a) tensioning a porous web;

(b) uniformly applying, under pressure, to one surface of said tensioned web a curable silicone polymer composition; and
(c) applying a transverse shear force uniformly and laterally across and against said surface and concurrently wiping away excess portions of silicone polymer from said surface;

where, an internal layer of silicone polymer is formed in an approximately planar region extending through said web in a direction generally parallel to one surface thereof.

25. The process of claim 22 wherein, a compressive force is applied uniformly and laterally across and against one surface of said web that wipes away excess portions of said liquid on said surface.

26. The process of claim 24 wherein the amount of said silicone polymer composition in the product web in the range of about 5 to about 200 weight percent of the weight of the untreated web.

27. The process of Claim 24 wherein the silicone polymer composition is cured in said web.

Claim 27